

REMARKS

Independent claims 1 and 7 have been amended to recite respectively the features of now-canceled claims 4 and 5 and claims 10 and 11. The dependencies of claims 6 and 12 have been changed to depend from the proper amended independent claims. Thus, the claims before the Examiner for consideration are claims 1 to 3, 6 to 9, and 12.

The independent claims have been amended to specify that (1) the diffusing parts are spaced from each other in a light-transmitting direction by a non-diffusing part and (2) the refractive index difference between the first diffusive fine particles and the first base material is smaller than the refractive index difference between the second diffusive fine particles and the second base material. Support for a structure having diffusing parts spaced from each other in a light-transmitting direction by a non-diffusing part can be found in the specification at least at page 3, line 28 to page 4, line 4; page 6, line 20 to page 7, line 7, and page 9, lines 9 to 23. See also Figs. 1 and 2. The refractive index difference recitation is found in original claims 5 and 11. Applicant respectfully submits that the claims as amended define over the cited references as explained below.

Claims 1 to 5 and 7 to 11 were rejected under 35 USC 102 as anticipated by Ishii et al. '572. The Examiner states that the reference shows a rear projection screen with lower light-diffusing properties on the light-source side than the light-diffusing properties on the viewer side. It is asserted that equation (II) in column 6 shows that the difference in refractive index is one of the variables that may be altered to optimize desired results.

Although applicant does not dispute the Examiner's characterization of that equation in a general sense, it is respectfully submitted that the equation does not lead the artisan to the invention claimed here for the reasons given below. While Ishii et al. '572 discloses a rear projection screen comprising a lens sheet (20) containing diffusing parts (21, 22) separately provided in a light-transmitting direction, and discloses at column 5, lines 29 to 65, that the light diffusion properties are stronger in the exit lens layer than in the entrance lens layer, the reference, with respect, does not teach or suggest the invention as claimed herein because the instant invention differs significantly from what is taught in or suggested by the reference.

Equation II in Ishii et al. '572 defines a relationship between the refractive index difference between (1) the particles in the light-entrance side and the light-entrance layer and (2) the refractive index difference between the particles in the light-exit

side layer and the light-exit side layer itself. The equation is to permit one to find parameters suitable for decreasing the color shift and improving the transmission efficiency of the light. The equation has nothing to do with the ability to increase the intensity of scintillation. Equation II merely establishes that the parameters of Δn_1 and Δn_2 satisfy the indicated arrangement, but there is no disclosure or suggestion that Δn_1 is smaller than Δn_2 because those parameters are dependent on other parameters, namely the weight concentration of the diffusing fine particles, the density of the diffusing fine particles, and the diameter of those diffusing fine particles. Thus, there is no reason for the person of ordinary skill in the art to understand, expect, or believe that the equation establishes in the context that Δn_1 is greater than Δn_2 . Rather, the equation shows merely that the fraction obtained by multiplying the refractive index difference between the thermoplastic resin and the light-diffusing fine particles in the entrance lens layer by the weight concentration of those particles and dividing that number by a number obtained by multiplying the density of those particles with the average particle diameter of those particles is less than a fraction obtained by doing a similar calculation for the exit lens layer. There is no reason to focus on the refractive index difference values; such recognition comes

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from the disclosure in this case and not by a study of the equation in the reference. The rejection should be withdrawn.

Applicant also respectfully traverses the rejection of claims 1 to 12 under 35 USC 102 as anticipated by Matsuzaki et al. '960. It is again asserted the reference teaches that light-diffusing properties can be made lower on the light-source side than the light-diffusing properties on the viewer side. Applicant, however, respectfully submits that the reference does not disclose, nor does the reference suggest, to the person of ordinary skill in the art a rear projection screen having, among other elements, a plurality of diffusing parts spaced from each other in a light-transmitting direction by a non-diffusing part, wherein the light source diffusing part has a diffusing power lower than the diffusing power of the observation-side diffusing part as a result of the difference in the refractive indices between the first diffusive fine particles and the first base material, which has a smaller value than the refractive index difference between the second diffusive fine particles and the second base material. The reference discloses a lenticular lens sheet having a single lens part. While this reference also shows an equation (II) identical to the equation shown in Ishii et al. '572, the equation does not teach or suggest the invention for the reasons presented above.

Accordingly, the reference does not teach or suggest a structure as claimed. The rejection should be withdrawn.

The rejection of claims 6 and 12 under 35 USC 103 as unpatentable over Ishii et al. '572, if applied to the claims as amended, is respectfully traversed. The patentability of claims 1 and 7, from which claims 6 and 12 respectively depend, has been discussed above. Claims 6 and 12 are patentable for the same reasons and the rejection should be withdrawn as well.

The Examiner is informed that there was timely filed an Information Disclosure Statement on November 15, 2001; he is asked to consider that document along with the present reply.

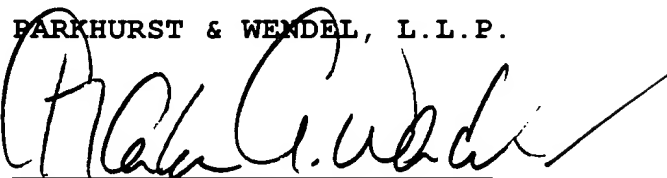
The Examiner is also thanked for acknowledging receipt of the certified copies of applicant's priority documents in the parent case and for listing the references provided in an Information Disclosure Statement.

Reconsideration of the rejections and an early allowance of claims 1 to 3, 6 to 9, and 12 is earnestly solicited.

The Examiner is requested to telephone the undersigned if further changes are required prior to allowance.

Respectfully submitted,

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Date

CAW/jmz

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Attachment: Version with Markings to
Show Changes Made

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1. A rear projection screen comprising :

a lens sheet having an

optical function of ^{for}condensing or diffusing light, said lens sheet

comprising a plurality of diffusing parts spaced from each other in a light-transmitting direction by a non-diffusing part,

^{of the} wherein the lens sheet has two [or more] diffusing parts [separately provided in a light-transmitting direction].

comprise a light-source side diffusing part and an observation-side diffusing part; the light-source side ~~having~~ diffusing part having a diffusing power lower than the diffusing power of the observation-side diffusing part, the light-source side diffusing part being formed by incorporating first diffusive fine particles into a first base material, and the observation-side diffusing part being formed by incorporating second diffusive fine particles into a second base material, ~~the~~ a refractive index difference between the first diffusive fine particles and

the first base material being smaller than a refractive index difference between the second diffusive fine particles and the second base material.

(Amended)

6. The rear projection screen according to claim 1, wherein the second diffusive fine particles have an average particle diameter not greater than 15 micrometers.

(Amended)

7. A rear projection screen comprising :-

optical sheets ^{including} having an optical function of ^{condensing or diffusing light,} ~~condensing or diffusing light,~~

at least one of said lens sheets or optical sheets comprising at least one diffusing part so that said lens sheets or optical sheets, as a whole, comprise a plurality of diffusing parts spaced from each other in a light-transmitting direction by a non-diffusing part,

wherein [at least one of the two or more lens sheets or optical sheets has at least one diffusing part, and the two or more lens sheets or optical sheets have, as a whole, two or more diffusing parts].

Two of the diffusing parts comprise a light-source side diffusing part and an observation-side diffusing part, the light-side diffusing part having a diffusing power lower than the diffusing power of the observation-side diffusing part, the light-side diffusing part being formed by incorporating first diffusing fine particles into a first base material, and the

observation side diffusing part ^{being} formed by incorporating second
 diffusive fine particles into a second base material, a refractive index
 difference between the first diffusive fine particles and the first base
 material being smaller than a refractive index difference between the
 second diffusive fine particles and the second base material.

(Amended)

12. The rear projection screen according to claim 11, wherein the
 second diffusive fine particles have an average particle diameter not
 greater than 15 micrometers.